L Number	Hits	Search Text	DB	Time stamp
10	31775	oxide near calcium	USPAT;	2002/07/08
			US-PGPUB:	11:59
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
11	1698	(oxide near calcium) and barrier	USPAT;	2002/07/08
			US-PGPUB;	11:59
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
12	208	((oxide near calcium) and barrier) and (dope	USPAT;	2002/07/08
		or doped or doping or dopant)	US-PGPUB;	12:00
		,	EPO; JPO;	12.00
			DERWENT;	
			IBM_TDB	
13	140	(((oxide near calcium) and barrier) and (dope	USPAT;	2002/07/02
		or doped or doping or dopant)) and (copper	US-PGPUB;	2002/07/08
		or cu)		12:01
		,	EPO; JPO;	
1			DERWENT;	
14	66	((((oxide near calcium) and barrier) and	IBM_TDB	
		(dope or doped or doping or dopant)) and	USPAT;	2002/07/08
		(copper or cu)) and semiconductor	US-PGPUB;	12:02
		(Jopper of Cu)) and Semiconductor	EPO; JPO;	
			DERWENT;	
15	7	(((()ovide near adaism) and baset)	IBM_TDB	
	•	(((((oxide near calcium) and barrier) and	USPAT;	2002/07/08
		(dope or doped or doping or dopant)) and	US-PGPUB;	12:08
		(copper or cu)) and semiconductor) and	EPO; JPO;	
		(oxide near (dope or doping or dopant or	DERWENT;	
6	32	doped))	IBM_TDB	
	32	oxide near doped near (calcium or ca)	USPAT;	2002/07/08
		İ	US-PGPUB;	12:15
			EPO; JPO;	
			DERWENT;	
7		UC3C40000	IBM_TDB	
	4	"6261963"	USPAT;	2002/07/08
			US-PGPUB;	12:28
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
В	5	"6226173"	USPAT;	2002/07/08
			US-PGPUB;	12:28
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	

19	83	(US-6387806-\$ or US-6368967-\$ or	USPAT;	2002/07/08
		US-6384442-\$ or US-6387754-\$ or	US-PGPUB;	12:40
		US-6355555-\$ or US-6351036-\$ or	DERWENT	
		US-6352921-\$ or US-6309959-\$ or		
		US-6303486-\$ or US-6291876-\$ or		
		US-6291348-\$ or US-6278147-\$ or		
		US-6261963-\$ or US-6203613-\$ or		
		US-6188134-\$ or US-6211066-\$ or		
		US-6171953-\$ or US-6160315-\$ or		
		US-6144050-\$ or US-6117770-\$ or		•
		US-6083818-\$ or US-6066892-\$ or		
		US-6077775-\$ or US-6057223-\$ or		
		US-6022808-\$ or US-6037257-\$).did. or		
		(US-5766379-\$ or US-6347049-\$ or		
		US-6329899-\$ or US-6168704-\$ or		
		US-5420612-\$ or US-5232900-\$ or		
		US-5361720-\$ or US-6270835-\$ or		
		US-6207522-\$ or US-4352716-\$ or		
		US-4396458-\$ or US-5985220-\$ or		
		US-4702963-\$ or US-6296942-\$ or		
		US-5546486-\$ or US-4165515-\$ or		
		US-5059583-\$ or US-5116812-\$ or		
		US-5470668-\$ or US-6136444-\$ or		
		US-3710205-\$ or US-6096648-\$ or		
		US-6080529-\$ or US-6194754-\$ or		
		US-4163736-\$ or US-3657784-\$ or		
		US-5298441-\$).did. or (US-3981073-\$ or		
		US-6284325-\$ or US-5031005-\$ or		
		US-5116774-\$ or US-5392306-\$ or		
		US-5118662-\$ or US-6319542-\$ or		
		US-6294835-\$ or US-6059940-\$ or		
		US-4968552-\$ or US-5622608-\$ or		4
		US-5959358-\$ or US-6226173-\$).did. or		
		(US-20020076918-\$ or US-20020022335-\$ or		
		US-20020025417-\$ or US-20020025675-\$ or		
		US-20010035581-\$ or US-20010051420-\$ or		
		US-20010036753-\$ or US-20010040238-\$ or		
		US-20020085319-\$ or US-20020070404-\$ or		
		US-20010050531-\$ or		
		US-20010024868-\$).did. or (WO-9402664-\$ or		
		US-5232900-\$ or JP-11040891-\$ or		
		EP-132924-\$ or JP-09167855-\$).did.		

20	0	((US-6387806-\$ or US-6368967-\$ or	USPAT;	2002/07/08
	J	US-6384442-\$ or US-6387754-\$ or	US-PGPUB;	12:42
		US-6355555-\$ or US-6351036-\$ or	EPO; JPO;	
		US-6352921-\$ or US-6309959-\$ or	DERWENT;	
		US-6303486-\$ or US-6291876-\$ or	IBM_TDB	
		US-6291348-\$ or US-6278147-\$ or		
		US-6261963-\$ or US-6203613-\$ or		
		US-6188134-\$ or US-6211066-\$ or		
		US-6171953-\$ or US-6160315-\$ or		
		US-6144050-\$ or US-6117770-\$ or		
		US-6083818-\$ or US-6066892-\$ or		
		US-6077775-\$ or US-6057223-\$ or		
		US-6022808-\$ or US-6037257-\$).did. or		
		(US-5766379-\$ or US-6347049-\$ or		
		US-6329899-\$ or US-6168704-\$ or		
		US-5420612-\$ or US-5232900-\$ or		
		US-5361720-\$ or US-6270835-\$ or		
		US-6207522-\$ or US-4352716-\$ or		
		US-4396458-\$ or US-5985220-\$ or		
		US-4702963-\$ or US-6296942-\$ or		
		US-5546486-\$ or US-4165515-\$ or		
		US-5059583-\$ or US-5116812-\$ or		
		US-5470668-\$ or US-6136444-\$ or		
		US-3710205-\$ or US-6096648-\$ or		
		US-6080529-\$ or US-6194754-\$ or		
		US-4163736-\$ or US-3657784-\$ or		
		US-5298441-\$).did. or (US-3981073-\$ or		
		US-6284325-\$ or US-5031005-\$ or		
		US-5116774-\$ or US-5392306-\$ or		
		US-5118662-\$ or US-6319542-\$ or		
		US-6294835-\$ or US-6059940-\$ or		
		US-4968552-\$ or US-5622608-\$ or		
		US-5959358-\$ or US-6226173-\$).did. or		
		(US-20020076918-\$ or US-20020022335-\$ or		
		US-20020025417-\$ or US-20020025675-\$ or		
		US-20010035581-\$ or US-20010051420-\$ or		
		US-20010035381-5 or US-20010051420-5 or US-20010040238-\$ or		
		US-20020085319-\$ or US-20020070404-\$ or		
		US-200100505315-5 or		
		US-20010030331-3 07 US-20010024868-\$).did. or (WO-9402664-\$ or		
		US-5232900-\$ or JP-11040891-\$ or		
		·		
		EP-132924-\$ or JP-09167855-\$).did.) and		
		("barrier layer" near (anneal or annealed or annealing))		
1	98	("barrier layer" near (anneal or annealed or	USPAT;	2002/07/08
		annealing))	US-PGPUB;	12:52
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
2	7	(("barrier layer" near (anneal or annealed or	USPAT;	2002/07/08
		annealing))) and ibm	US-PGPUB;	12:54
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	

23	14	((US-6387806-\$ or US-6368967-\$ or	USPAT;	2002/07/08
	1	US-6384442-\$ or US-6387754-\$ or	US-PGPUB;	12:56
		US-6355555-\$ or US-6351036-\$ or	EPO; JPO;	
		US-6352921-\$ or US-6309959-\$ or	DERWENT;	
		US-6303486-\$ or US-6291876-\$ or	IBM_TDB	
		US-6291348-\$ or US-6278147-\$ or		
		US-6261963-\$ or US-6203613-\$ or		
		US-6188134-\$ or US-6211066-\$ or		
		US-6171953-\$ or US-6160315-\$ or		
		US-6144050-\$ or US-6117770-\$ or		
		US-6083818-\$ or US-6066892-\$ or		
		US-6077775-\$ or US-6057223-\$ or		
		US-6022808-\$ or US-6037257-\$).did. or		
		(US-5766379-\$ or US-6347049-\$ or		
		US-6329899-\$ or US-6168704-\$ or	:	
	}	US-5420612-\$ or US-5232900-\$ or		,
		US-5361720-\$ or US-6270835-\$ or		
		US-6207522-\$ or US-4352716-\$ or		
		US-4396458-\$ or US-5985220-\$ or		
		US-4702963-\$ or US-6296942-\$ or		
		US-5546486-\$ or US-4165515-\$ or		
		US-5059583-\$ or US-5116812-\$ or		
	9 1	US-5470668-\$ or US-6136444-\$ or		
		US-3710205-\$ or US-6096648-\$ or		
		US-6080529-\$ or US-6194754-\$ or		
		US-4163736-\$ or US-3657784-\$ or		
		US-5298441-\$).did. or (US-3981073-\$ or		
	, 5	US-6284325-\$ or US-5031005-\$ or	1	
		US-5116774-\$ or US-5392306-\$ or		
		US-5118662-\$ or US-6319542-\$ or	•	
		US-6294835-\$ or US-6059940-\$ or		
		US-4968552-\$ or US-5622608-\$ or		
		US-5959358-\$ or US-6226173-\$).did. or	1	
		(US-20020076918-\$ or US-20020022335-\$ or		
		US-20020076916-\$ or US-20020022333-\$ or US-20020025675-\$ or		
		i i		
		US-20010035581-\$ or US-20010051420-\$ or		
		US-20010036753-\$ or US-20010040238-\$ or		
		US-20020085319-\$ or US-20020070404-\$ or		
		US-20010050531-\$ or		
		US-20010024868-\$).did. or (WO-9402664-\$ or		
		US-5232900-\$ or JP-11040891-\$ or		
		EP-132924-\$ or JP-09167855-\$).did.) and ibm		
	0	("(copper near (interconnect or	USPAT;	2002/07/05
		interconnection)) and barrier and (dielectric	US-PGPUB;	12:31
	1 1	or insulating) and (layer or film) and divalent	EPO; JPO;	
		and ion and (dopant or doped or doping or	DERWENT;	
		dope)").PN.	IBM_TDB	
	1	(copper near (interconnect or	USPAT;	2002/07/05
		interconnection)) and barrier and (dielectric	US-PGPUB;	12:41
		or insulating) and (layer or film) and divalent	EPO; JPO;	
	111	and ion and (dopant or doped or doping or	DERWENT;	
		dope)	IBM_TDB	

 71	(copper near (interconnect or	USPAT;	2002/07/05
	interconnection)) and barrier and (dielectric	US-PGPUB;	12:43
	or insulating) and (layer or film) and	EPO; JPO;	
	(beryllium or magnesium or calcium or	DERWENT;	
	strontium or barium) and (dopant or doped or doping or dope)	IBM_TDB	
67	((copper near (interconnect or	USPAT;	2002/07/05
	interconnection)) and barrier and (dielectric	US-PGPUB;	12:43
	or insulating) and (layer or film) and	EPO; JPO;	
	(beryllium or magnesium or calcium or	DERWENT;	
	strontium or barium) and (dopant or doped	IBM_TDB	
	or doping or dope)) and ("barrier layer" or		
	"barrier film")		
60	(((copper near (interconnect or	USPAT;	2002/07/05
	interconnection)) and barrier and (dielectric	US-PGPUB;	12:46
	or insulating) and (layer or film) and	EPO; JPO;	
	(beryllium or magnesium or calcium or	DERWENT;	
	strontium or barium) and (dopant or doped	IBM_TDB	
	or doping or dope)) and ("barrier layer" or		
	"barrier film")) and ("dielectric layer" or		
1 6 1	"dielectric film" or "insulating layer" or		
	"insulating film")		
0	((((copper near (interconnect or	USPAT;	2002/07/05
	interconnection)) and barrier and (dielectric	US-PGPUB;	12:52
	or insulating) and (layer or film) and	EPO; JPO;	
	(beryllium or magnesium or calcium or	DERWENT;	
	strontium or barium) and (dopant or doped	IBM_TDB	
	or doping or dope)) and ("barrier layer" or		
	"barrier film")) and ("dielectric layer" or		
	"dielectric film" or "insulating layer" or		
	"insulating film")) and (oxide near10 barrier		
	near10 (beryllium or magnesium or calcium		
400	or strontium or barium))	USPAT:	2002/07/05
426	oxide near10 barrier near10 (beryllium or	US-PGPUB:	13:04
	magnesium or calcium or strontium or	EPO; JPO;	13.04
	barium)	DERWENT;	
		IBM_TDB	
204	(oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
204	magnesium or calcium or strontium or	US-PGPUB;	13:06
	barium)) and "barrier layer"	EPO; JPO;	
		DERWENT;	
		IBM_TDB	
101	((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
	magnesium or calcium or strontium or	US-PGPUB;	13:06
	barium)) and "barrier layer") and (copper or	EPO; JPO;	
	cu)	DERWENT;	
		IBM_TDB	
54	(((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
	magnesium or calcium or strontium or	US-PGPUB;	13:06
	barium)) and "barrier layer") and (copper or	EPO; JPO;	
	cu)) and (dielectric or insulating) and (layer	DERWENT;	
	or film)	IBM_TDB	

-	512	oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:37
		barium or Be or Mg or Ca or St or Ba)	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
•	256	(oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:06
		barium or Be or Mg or Ca or St or Ba)) and	EPO; JPO;	
		"barrier layer"	DERWENT;	
			IBM_TDB	
'	137	((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:06
		barium or Be or Mg or Ca or St or Ba)) and	EPO; JPO;	
		"barrier layer") and (copper or cu)	DERWENT:	
			IBM_TDB	
•	66	(((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:07
		barium or Be or Mg or Ca or St or Ba)) and	EPO; JPO;	
		"barrier layer") and (copper or cu)) and	DERWENT;	
	1	(dielectric or insulating) and (layer or film)	IBM TDB	
	1	((((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:08
		barium or Be or Mg or Ca or St or Ba)) and	EPO; JPO;	13.06
		"barrier layer") and (copper or cu)) and	DERWENT;	
		(dielectric or insulating) and (layer or film))	IBM_TDB	
		and ("copper interconnect" or "cu	1511155	
		interconnect" or "copper interconnection"		
		or "cu interconnection")		
i i	0	(((((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	2002/07/05
		barium or Be or Mg or Ca or St or Ba)) and	EPO; JPO;	13:38
		"barrier layer") and (copper or cu)) and		
ì		(dielectric or insulating) and (layer or film))	DERWENT;	
		and ("copper interconnect" or "cu	IBM_TDB	
		interconnect" or "copper interconnection"		
		or "cu interconnection")) and (oxide near		
		barrier near (beryllium or magnesium or		
		calcium or strontium or barium or Be or Mg		
		or Ca or St or Ba))		
	- 1	(((((oxide near10 barrier near10 (beryllium or		
	•	magnesium or calcium or strontium or	USPAT;	2002/07/05
		barium or Be or Mg or Ca or St or Ba)) and	US-PGPUB;	13:39
		"harrier layer") and (annual and	EPO; JPO;	
		"barrier layer") and (copper or cu)) and	DERWENT;	
		(dielectric or insulating) and (layer or film))	IBM_TDB	
ļ		and ("copper interconnect" or "cu		
		interconnect" or "copper interconnection"	į	
		or "cu interconnection")) and (oxide near5		
		barrier near5 (beryllium or magnesium or		
	'	calcium or strontium or barium or Be or Mg		
		or Ca or St or Ba))		

-	4	((((oxide near10 barrier near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or barium or Be or Mg or Ca or St or Ba)) and "barrier layer") and (copper or cu)) and	US-PGPUB; EPO; JPO; DERWENT;	13:49
		(dielectric or insulating) and (layer or film)) and (oxide near barrier near (beryllium or magnesium or calcium or strontium or	IBM_TDB	
	2336	barium or Be or Mg or Ca or St or Ba)) "divalent ion"	HCDAT.	2002/07/05
	2555	divalent ion	USPAT; US-PGPUB;	13:51
			EPO; JPO; DERWENT; IBM_TDB	13.31
	17	"divalent ion" and "barrier layer"	USPAT;	2002/07/05
		and builter layer	US-PGPUB;	13:52
			EPO; JPO;	13.32
	A-1		DERWENT;	
			IBM TDB	
	2	("divalent ion" and "barrier layer") and	USPAT;	2002/07/05
	_	("barrier layer" near10 "divalent ion")	US-PGPUB;	13:54
		, and the man is alreading ton ,	EPO; JPO;	10104
			DERWENT;	
			IBM_TDB	
	8	("barrier layer" near oxide near (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	13:56
	1	barium or be or mg or ca or st or ba))	EPO; JPO;	
		and the second of the second s	DERWENT;	
			IBM_TDB	
	29	("barrier layer" near2 oxide near2 (beryllium	USPAT;	2002/07/05
		or magnesium or calcium or strontium or	US-PGPUB;	13:59
		barium or be or mg or ca or st or ba))	EPO; JPO;	
		3	DERWENT;	
			IBM_TDB	
	52	("barrier layer" near3 oxide near3 (beryllium	USPAT;	2002/07/05
		or magnesium or calcium or strontium or	US-PGPUB;	14:02
		barium or be or mg or ca or st or ba))	EPO; JPO;	
		,	DERWENT;	
			IBM_TDB	1
	75	("barrier layer" near4 oxide near4 (beryllium	USPAT;	2002/07/05
		or magnesium or calcium or strontium or	US-PGPUB;	14:03
		barium or be or mg or ca or st or ba))	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	102	"copper interconnect structure" and "barrier	USPAT;	2002/07/05
		layer"	US-PGPUB;	14:04
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	67	("copper interconnect structure" and	USPAT;	2002/07/05
		"barrier layer") and (magnesium or mg or	US-PGPUB;	14:05
		beryllium or be or calcium or ca or strontium	EPO; JPO;	
		or st or barium or ba)	DERWENT;	
			IBM_TDB	

-	11	("copper interconnect structure" and	USPAT;	2002/07/05
		"barrier layer") and (barrier near10	US-PGPUB;	14:09
		(magnesium or mg or beryllium or be or	EPO; JPO;	
		calcium or ca or strontium or st or barium or	DERWENT;	
		ba))	IBM_TDB	
	0	"silicon oxide layer doped with"	USPAT;	2002/07/05
			US-PGPUB;	14:10
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	258	"silicon oxide layer" near doped	USPAT;	2002/07/05
		_	US-PGPUB;	14:12
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	56	"silicon oxide layer" adj doped	USPAT;	2002/07/05
			US-PGPUB;	14:12
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	1	("silicon oxide layer" adj doped) near10	USPAT;	2002/07/05
	-	(beryllium or magnesium or calcium or	US-PGPUB;	1
		strontium or barium or be or mg or ca or st		14:14
		or ba)	EPO; JPO;	
		Of Day	DERWENT;	
	1	("silicon oxide layer" adj doped) near20	IBM_TDB	
			USPAT;	2002/07/05
		(beryllium or magnesium or calcium or	US-PGPUB;	14:16
		strontium or barium or be or mg or ca or st	EPO; JPO;	
		or ba)	DERWENT;	
	_	(W-11' 11 W W L W W A CO W	IBM_TDB	
	5	("silicon oxide" adj doped) near20 (beryllium	USPAT;	2002/07/05
		or magnesium or calcium or strontium or	US-PGPUB;	14:17
		barium or be or mg or ca or st or ba)	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
	6	("silicon oxide" near doped) near20	USPAT;	2002/07/05
		(beryllium or magnesium or calcium or	US-PGPUB;	14:19
		strontium or barium or be or mg or ca or st	EPO; JPO;	
		or ba)	DERWENT;	
			IBM_TDB	
	23	("silicon oxide" near5 doped) near20	USPAT;	2002/07/05
		(beryllium or magnesium or calcium or	US-PGPUB;	14:21
		strontium or barium or be or mg or ca or st	EPO; JPO;	
		or ba)	DERWENT;	
			IBM_TDB	
	1045	("oxide" near5 doped) near20 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	14:21
		barium or be or mg or ca or st or ba)	EPO; JPO;	- -
		3 2 n 31 31 31 31	DERWENT;	
			IBM_TDB	

-	307	("oxide" near doped) near20 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or barium or be or mg or ca or st or ba)	US-PGPUB; EPO; JPO;	14:22
		,	DERWENT;	
	004		IBM_TDB	
-	234	("oxide" near doped) near10 (beryllium or magnesium or calcium or strontium or	USPAT;	2002/07/05
		barium or be or mg or ca or st or ba)	US-PGPUB; EPO; JPO;	14:22
		animin of the or mig of the of St of bay	DERWENT;	
			IBM_TDB	
-	85	(("oxide" near doped) near10 (beryllium or	USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	14:23
		barium or be or mg or ca or st or ba)) and	EPO; JPO;	
		(copper or cu)	DERWENT;	
-	7	((("oxide" near doped) near10 (beryllium or	IBM_TDB USPAT;	2002/07/05
		magnesium or calcium or strontium or	US-PGPUB;	14:23
		barium or be or mg or ca or st or ba)) and	EPO; JPO;	
		(copper or cu)) and barrier	DERWENT;	
			IBM_TDB	
•	235	("copper interconnect" or "copper	USPAT;	2002/07/05
		interconnection" or "cu interconnect" or "cu	US-PGPUB;	14:26
		interconnection") and ("barrier layer" or "barrier film") and (dope or dopant or doping	EPO; JPO; DERWENT;	
		or doped) and (copper or cu) and (beryllium	IBM_TDB	
		or magnesium or calcium or strontium or		
		barium or be or mg or ca or st or ba)		
	17	(("copper interconnect" or "copper	USPAT;	2002/07/05
		interconnection" or "cu interconnect" or "cu	US-PGPUB;	14:33
		interconnection") and ("barrier layer" or	EPO; JPO;	
		"barrier film") and (dope or dopant or doping or doped) and (copper or cu) and (beryllium	DERWENT; IBM_TDB	
		or magnesium or calcium or strontium or	IBIVI_IDB	
		barium or be or mg or ca or st or ba)) and		
		("second barrier layer" or "second barrier		
1		film")		
	211	("second barrier layer" or "second barrier	USPAT;	2002/07/05
		film") near (comprised or formed or includes)	US-PGPUB;	14:36
İ		includes	EPO; JPO; DERWENT;	
			IBM_TDB	
	7	(("second barrier layer" or "second barrier	USPAT;	2002/07/05
		film") near (comprised or formed or	US-PGPUB;	14:38
		includes)) and (("second barrier layer" or	EPO; JPO;	
		"second barrier film") near (comprised or	DERWENT;	
	7	formed or includes)).ti,clms.	IBM_TDB	000010=15=
	1	(("second barrier layer" or "second barrier film") near (comprised or comprising or	USPAT;	2002/07/05
		formed or includes)).ti,clms.	US-PGPUB; EPO; JPO;	14:40
			DERWENT;	
			IBM_TDB	

-	8	(("second barrier layer" or "second barrier	USPAT;	2002/07/05
		film") near5 (comprised or comprising or	US-PGPUB;	14:41
		formed or includes)).ti,clms.	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	1323	(("barrier layer" or "barrier film") near5	USPAT;	2002/07/05
		(comprised or comprising or formed or	US-PGPUB;	14:43
		includes)).ti,clms.	EPO; JPO;	
			DERWENT;	
	604	//111	IBM_TDB	
•	621	(("barrier layer" or "barrier film") near	USPAT;	2002/07/05
		(comprised or comprising or formed or	US-PGPUB;	14:44
		includes)).ti,clms.	EPO; JPO;	
			DERWENT;	
_	17	((("barrier layer" or "barrier film") near	IBM_TDB	0000107107
		((comprised or comprising or formed or	USPAT;	2002/07/05
		includes)).ti,clms.) and (copper or cu) and	US-PGPUB;	14:46
		(beryllium or magnesium or calcium or	EPO; JPO; DERWENT;	
		strontium or barium or be or mg or ca or st	IBM TDB	
		or ba)	IDM_IDB	
	1	6207522.URPN.	USPAT	2002/07/05
			USPAI	14:50
-	18	("3481781" "4277525" "4501602"	USPAT	2002/07/05
		"4645524" "5043002" "5079069"	USFAI	14:51
		"5152819" "5154744" "5155655"	1	14.51
		"5161086" "5261153" "5347258"		
	1	"5356672" "5410107" "5454847"		
		"5466892" "5652021" "5670262").PN.		
-	61	4702963.URPN.	USPAT	2002/07/05
				14:51
-	1	6136444.URPN	USPAT	2002/07/05
				14:52
-	2	"copper interconnect structure" and	USPAT;	2002/07/05
		("barrier layer" or "barrier film") and (copper	US-PGPUB;	14:55
	1	or cu) and (beryllium or magnesium or	EPO; JPO;	
		calcium or strontium or barium)	DERWENT;	
			IBM_TDB	
-	2	"copper interconnect structure" and	USPAT;	2002/07/05
		("barrier layer" or "barrier film") and	US-PGPUB;	14:57
		(beryllium or magnesium or calcium or	EPO; JPO;	
		strontium or barium)	DERWENT;	
			IBM_TDB	
•	95	"copper interconnect" and ("barrier layer" or	USPAT;	2002/07/05
	1	"barrier film") and (beryllium or magnesium	US-PGPUB;	14:59
		or calcium or strontium or barium)	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
•	88	("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:02
		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)	DERWENT;	
			IBM_TDB	

-	6	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:03
1		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		(beryllium or be)	IBM_TDB	
-	52	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:04
1		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		(magnesium or mg)	IBM_TDB	
•	0	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:04
		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		((doped or dopant or doping or dope) near	IBM_TDB	
		(magnesium or mg))	A A	
-	7	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:06
		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		((doped or dopant or doping or dope) near5	IBM_TDB	
		(magnesium or mg))		
-	19	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:07
		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		((barrier layer) near5 (magnesium or mg))	IBM_TDB	
-	21	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:07
1		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	1
		((barrier layer) near (magnesium or mg))	IBM_TDB	
-	1	(("copper interconnect" and ("barrier layer"	USPAT;	2002/07/05
		or "barrier film") and (beryllium or	US-PGPUB;	15:09
		magnesium or calcium or strontium or	EPO; JPO;	
		barium)) and (dielectric or insulating)) and	DERWENT;	
		(("barrier layer") near (magnesium or mg))	IBM_TDB	
-	2	6261963.URPN.	USPAT	2002/07/05
				15:09
-	34	(("barrier layer") near (magnesium or mg))	USPAT;	2002/07/05
			US-PGPUB;	15:14
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	5	(("barrier layer") near (beryllium or be))	USPAT;	2002/07/05
			US-PGPUB;	15:16
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	8	(("barrier layer") near (calcium or ca))	USPAT;	2002/07/05
			US-PGPUB;	15:18
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	

	4	//!!hamiaalaaa!\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	LIGHT	T 0000/07/07
-	4	(("barrier layer") near (strontium))	USPAT;	2002/07/05
			US-PGPUB;	15:18
			EPO; JPO;	
			DERWENT;	
		4494	IBM_TDB	
-	13	(("barrier layer") near (barium))	USPAT;	2002/07/05
			US-PGPUB;	15:20
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	20	(("barrier layer") near5 (beryllium))	USPAT;	2002/07/05
			US-PGPUB;	15:23
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	98	(("barrier layer") near5 (magnesium))	USPAT;	2002/07/05
	T i		US-PGPUB;	15:23
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	52	((("barrier layer") near5 (magnesium))) near5	USPAT;	2002/07/05
		(oxide or doped or dopant or doping or dope)	US-PGPUB;	15:26
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	13	(((("barrier layer") near5 (magnesium)))	USPAT;	2002/07/05
		near5 (oxide or doped or dopant or doping or	US-PGPUB;	15:28
		dope)) and copper	EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	69	("barrier layer" or "barrier film") and	USPAT;	2002/07/05
		("silicon oxide" or "silicon dioxide") and	US-PGPUB;	15:34
		((doped or doping or dope or dopant) near	EPO; JPO;	
		(beryllium or magnesium or calcium or	DERWENT;	
		strontium or barium))	IBM_TDB	
	31	(("barrier layer" or "barrier film") and	USPAT;	2002/07/05
		("silicon oxide" or "silicon dioxide") and	US-PGPUB;	15:31
		((doped or doping or dope or dopant) near	EPO; JPO;	.0101
		(beryllium or magnesium or calcium or	DERWENT;	
		strontium or barium))) and copper	IBM_TDB	
	3	("barrier layer" or "barrier film") and	USPAT;	2002/07/05
		("silicon oxide" or "silicon dioxide") and	US-PGPUB;	
		(((doped or doping or dope or dopant) near	· ·	15:36
		((doped or doping or dope or dopant) near (beryllium or magnesium or calcium or	EPO; JPO;	
	1/1		DERWENT;	
		strontium or barium)) same "barrier layer")	IBM_TDB	
_	205	and copper		0000/07/07
•	365	((beryllium or magnesium or calcium or	USPAT;	2002/07/05
		strontium or barium) same "barrier layer")	US-PGPUB;	15:37
		and copper	EPO; JPO;	
			DERWENT;	
			IBM_TDB	

•	17	((beryllium or magnesium or calcium or	USPAT;	2002/07/05
		strontium or barium) near "barrier layer") and copper	US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	15:40
	87	((beryllium or magnesium or calcium or strontium or barium) near5 "barrier layer") and copper	USPAT; US-PGPUB; EPO; JPO; DERWENT;	2002/07/05 15:42
•	36	((beryllium or magnesium or calcium or strontium or barium) near5 "barrier layer" near5 oxide) and copper	IBM_TDB USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 15:47
-	20	(("copper interconnect" or "copper interconnection") and ("barrier layer" or "barrier film" or "buffer layer" or "buffer film")).ti,clms.	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 15:50
	81	(("copper interconnect" or "copper interconnection") and ("barrier layer" or "barrier film" or "buffer layer" or "buffer film")) and ("insulating layer" or "dielectric layer" or "insulating film" or "dielectric film") and (beryllium or magnesium or calcium or strontium or barium) and (dioxide or oxide)	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 15:52
	3	((("copper interconnect" or "copper interconnection") and ("barrier layer" or "barrier film" or "buffer layer" or "buffer film")) and ("insulating layer" or "dielectric layer" or "insulating film" or "dielectric film") and (beryllium or magnesium or calcium or strontium or barium) and (dioxide or oxide)) and beryllium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 15:53
	45	((("copper interconnect" or "copper interconnection") and ("barrier layer" or "barrier film" or "buffer layer" or "buffer film")) and ("insulating layer" or "dielectric layer" or "insulating film" or "dielectric film") and (beryllium or magnesium or calcium or strontium or barium) and (dioxide or oxide)) and magnesium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 16:01
-	14	((("copper interconnect" or "copper interconnection") and ("barrier layer" or "barrier film" or "buffer layer" or "buffer film")) and ("insulating layer" or "dielectric layer" or "insulating film" or "dielectric film") and (beryllium or magnesium or calcium or strontium or barium) and (dioxide or oxide)) and calcium	USPAT; US-PGPUB; EPO; JPO; DERWENT; IBM_TDB	2002/07/05 16:03

•	33	((("copper interconnect" or "copper	USPAT;	2002/07/05
		interconnection") and ("barrier layer" or	US-PGPUB;	16:09
		"barrier film" or "buffer layer" or "buffer	EPO; JPO;	
		film")) and ("insulating layer" or "dielectric	DERWENT;	
		layer" or "insulating film" or "dielectric	IBM_TDB	
		film") and (beryllium or magnesium or	_	
		calcium or strontium or barium) and (dioxide		
		or oxide)) and strontium		
	33	((("copper interconnect" or "copper	USPAT;	2002/07/05
		interconnection") and ("barrier layer" or	US-PGPUB;	16:12
		"barrier film" or "buffer layer" or "buffer	EPO; JPO;	10.12
		film")) and ("insulating layer" or "dielectric	DERWENT;	
		layer" or "insulating film" or "dielectric		
		_	IBM_TDB	
		film") and (beryllium or magnesium or		
		calcium or strontium or barium) and (dioxide		
		or oxide)) and barium		
	6	"barrier layer" near calcium	USPAT;	2002/07/05
			US-PGPUB;	16:18
			EPO; JPO;	
			DERWENT;	
	_		IBM_TDB	
-	6	("barrier layer" or "barrier film") near	USPAT;	2002/07/05
		calcium	US-PGPUB;	16:19
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
•	10	("barrier layer" or "barrier film") near	USPAT;	2002/07/05
		(calcium or ca)	US-PGPUB;	16:31
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
-	75	("barrier layer" or "barrier film") near5	USPAT;	2002/07/05
i		(calcium or ca)	US-PGPUB;	16:32
			EPO; JPO;	
			DERWENT;	
			IBM_TDB	
•	1	(("barrier layer" or "barrier film") near5	USPAT;	2002/07/05
		(calcium or ca)) and copper and	US-PGPUB;	16:33
	- V	(interconnect or interconnection) and	EPO; JPO;	
		(dielectric or insulating)	DERWENT;	
			IBM_TDB	
-	1	copper and (interconnect or	USPAT;	2002/07/05
		interconnection) and (dielectric or	US-PGPUB;	16:37
		insulating) and (barrier near5 calcium)	EPO; JPO;	
	L. D		DERWENT;	
			IBM_TDB	
-	3	copper and (interconnect or	USPAT;	2002/07/05
		interconnection) and (dielectric or	US-PGPUB;	16:41
		insulating) and (barrier near10 calcium)	EPO; JPO;	
		,	DERWENT;	
			IBM_TDB	

-	13	copper and (interconnect or	USPAT;	2002/07/05
		interconnection) and (dielectric or	US-PGPUB;	16:42
		insulating) and (barrier near5 magnesium)	EPO; JPO;	
			DERWENT;	
			IBM_TDB	